## USAID Population and Health Highlights

USAID is the major donor in population, child survival, and HIV/AIDS, with active programs in 69 countries.

Steady progress has been made in the **use of family planning** in countries that have been major recipients of USAID assistance.

- Contraceptive prevalence rates (measures of contraceptive use) continue to rise. As a result, total fertility rates, or the average number of children a woman will have during her lifetime, are declining. In the 28 countries that have received the largest amount of population assistance, average family size has decreased from 6.1 children in the 1960s to 4.2 in the 1990s.
- In Bangladesh the total fertility rate has declined from the 1975 rate of 6.1 to the current rate of 3.4. The contraceptive prevalence rate has increased from 8 percent in 1975 to the current rate of 45 percent.

Each year, critical lifesaving **health services** supported by the Agency and its partners prevent more than four million infant and child deaths.

- Infant and under-5 mortality rates continue a progressive decline toward the World Summit Goal for the year 2000. From 1985 through 1992, USAID's Child Survival Initiative led to a 10 percent decline in infant mortality rates in USAID-assisted countries.
- The eradication of polio in the Western Hemisphere, achieved in 1994 through a combined effort of USAID and its partners, provided the framework for a measles elimination effort in Latin America, initiated in 1995.

USAID works to ensure that services to prevent **maternal mortality**, and the knowledge of when they should be used, are available and accessible to women, their families, and their communities.

- The self-diagnosis of maternal and neonatal health problems introduced by USAID in Inquisivi, Bolivia proved successful in increasing the use of modern contraception nearly 30 percent within one year and in decreasing the number of perinatal deaths by more than 50 percent.

USAID establishes global standards of practice for **HIV prevention.**

- In collaboration with its partners, USAID has reached more than 3.2 million people with comprehensive HIV prevention education; trained more than 58,000 people to serve as educators, counselors, health providers, and program managers; and arranged for the sale or distribution of more than 118 million condoms in developing countries.
- In Kenya, computer models estimate that through the condom promotion program alone, more than 110,000 HIV infections and 1.3 million other sexually transmitted infections were averted between 1991 and 1994.

# 4. Stabilizing World Population and Protecting Human Health

USAID POPULATION, health, and nutrition programs have helped save lives and make family planning services widely available for more than 30 years. These programs have contributed decisively to substantial declines in fertility and mortality rates. Significant progress has been made toward the USAID goal of stabilizing world population and protecting human health in a sustainable fashion. USAID's longstanding family planning and health care efforts have evolved in response to changing needs and priorities in developing countries: the Agency expanded child survival efforts in 1985 through the Child Survival Initiative; in 1986 USAID launched its HIV/AIDS program; and in the last several years, maternal health has received increased attention.

The strategy for attaining the Agency's goal of stabilizing world population and protecting human health relies on achieving four closely related objectives, identified in figure 4.1. These objectives are accomplished in partnership with communities, governments, other bilateral and multilateral donors, and nongovernmental organizations (NGOs).

Most USAID country programs address at least three of these objectives. In 1995, USAID's investment in population, health, and nutrition totaled close to $1.2 billion from all appropriation accounts. From 1992 through 1995 the proportion of USAID's budget devoted to population, health, and nutrition increased from 15 to 19 percent. USAID continues to be the major donor in population, child survival, and HIV/AIDS, accounting for roughly 50 percent of bilateral donor resources in each of these areas.

## Approaches for Impact and Sustainability

USAID uses a combination of approaches to achieve the strategic objectives for the population, health, and nutrition sector. These approaches are reinforced by strategies that help maximize the effectiveness and sustainability of programs:

Building on the synergies among population, health, and nutrition programs. Progress made in achieving one population, health, and nutrition objective reinforces the achievement of the others. For example, when couples space their children at least two years apart, the risk of a premature death of the child or mother is greatly reduced. Conversely, improved prospects for survival of

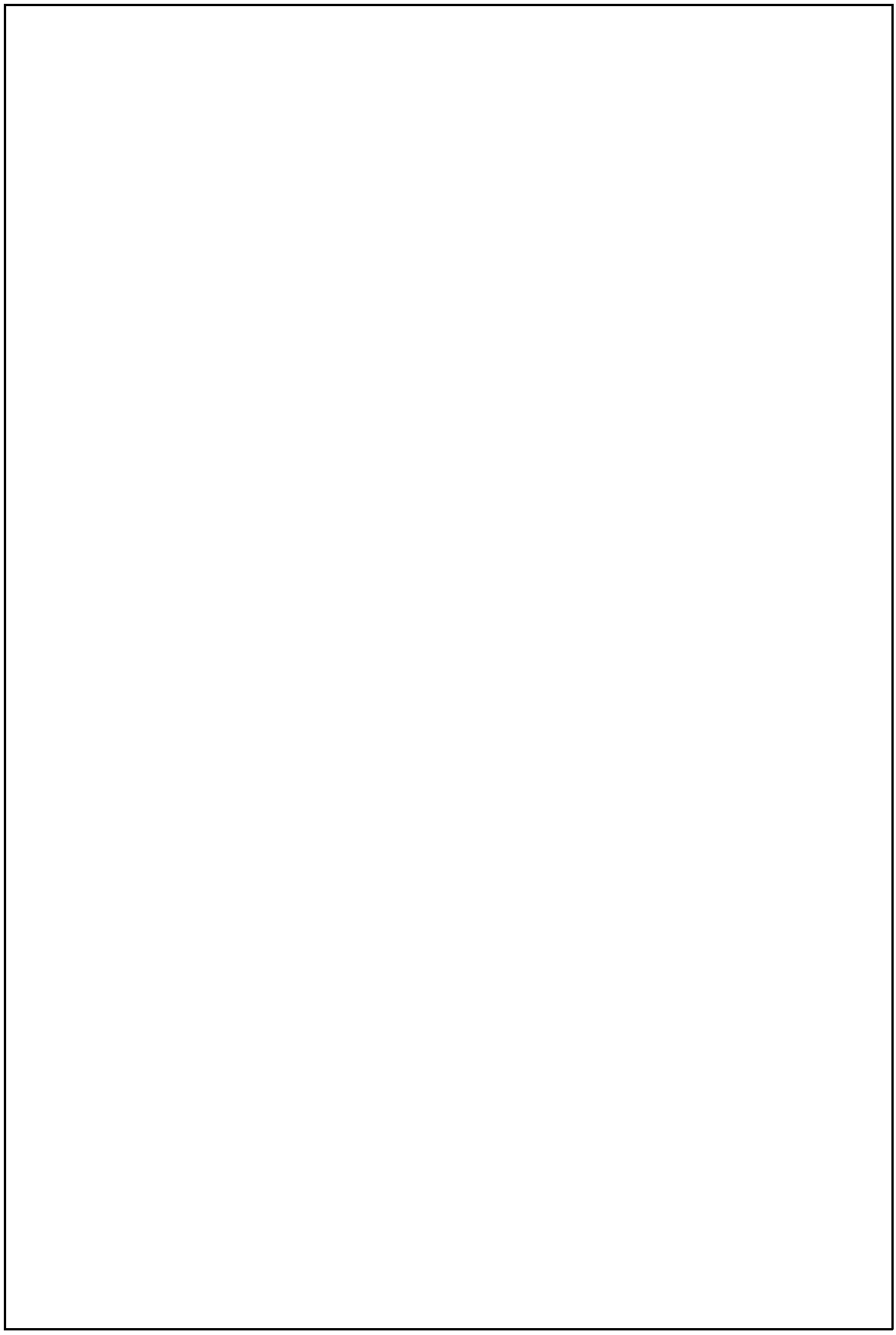
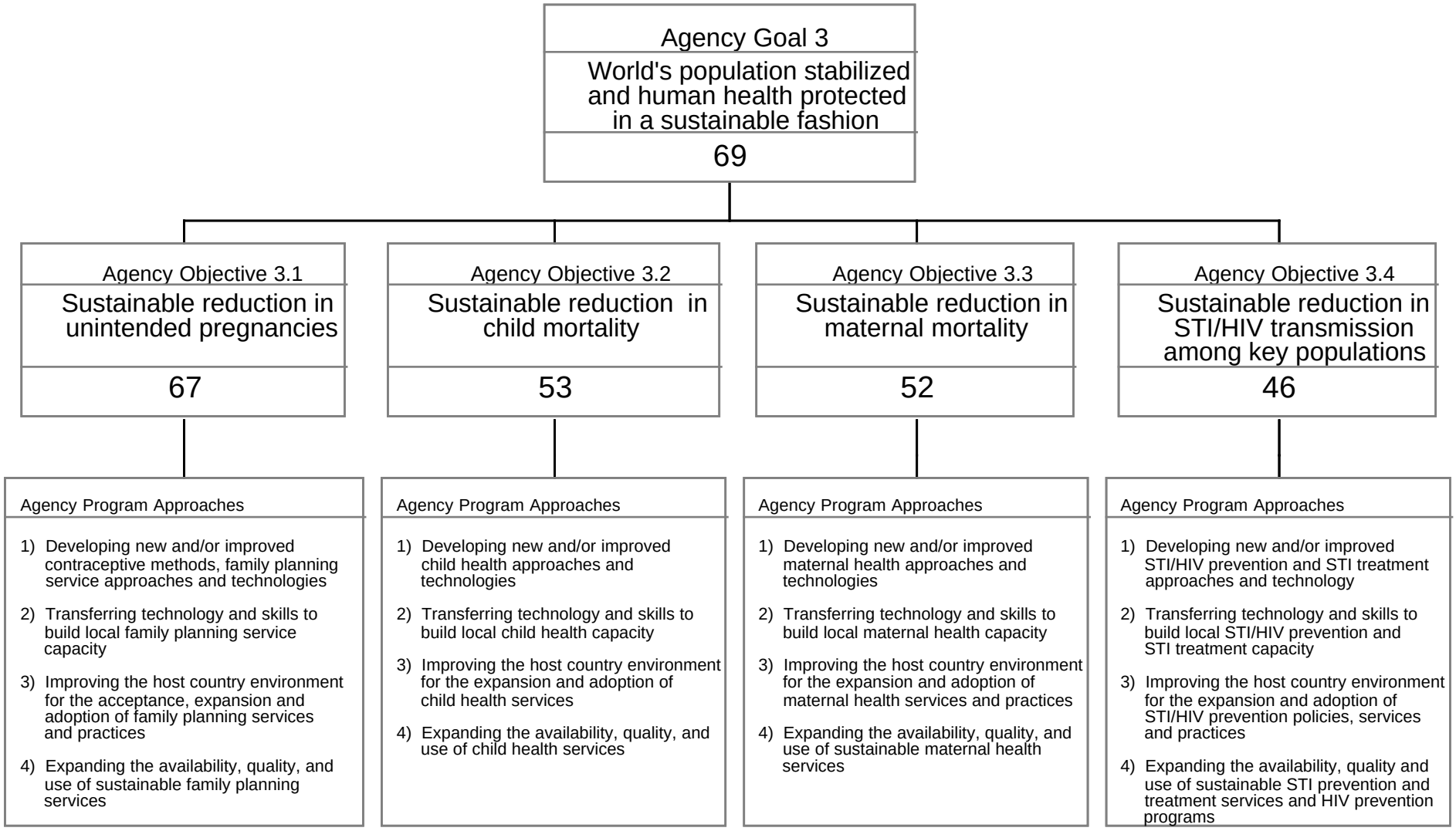


Figure 4.1
Population and Health and Nutrition Strategic Framework 1995
Number of Country Programs Contributing to each Objective



their children can enhance couples' demand for family planning. Integrated approaches to service delivery are cost-effective and can lead to improved quality of care.

Concentrating assistance. While USAID programs in the population, health, and nutrition sector are active in 69 countries in 1995 (see table 4.1), 75 percent of assistance concentrated on 25 countries and regional programs. These countries had the greatest magnitude and severity of need.

**Table 4.1 USAID Programs With Population, Health, and Nutrition Objectives in 1995[a]**

| | Africa | Asia and the Near East | Europe and the New Independent States | Latin America and the Caribbean | Total |
|---|---|---|---|---|---|
| **Total number of programs** | 29 | 18 | 26 | 20 | 93 |
| **Number with PHN objectives** | 23 (79%) | 11 (61%) | 21 (81%) | 14 (70%) | 69 (74%) |
| **3.1: Reduction in unintended pregnancies** | *Benin, Botswana,* Cameroon,Cape Verde, Chad, *Ethiopia, Ghana, Guinea, Kenya,* Lesotho, *Madagascar, Malawi, Mali, Mozambique, Niger,* Rwanda, *Senegal,* Swaziland, *Tanzania, Uganda, Zambia, Zimbabwe* (22) | *Bangladesh,* Cambodia, *Egypt, India, Indonesia, Jordan, Morocco, Nepal,* Oman, *Philippines,* Yeman (11) | Albania, Armenia, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Poland, Romania, Russia, Slovakia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan (21) | Brazil, Costa Rica, *Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica,* Mexico, *Nicaragua, Paraguay, Peru* (13) | 67 (72%) |
| **3.2: Reduction in child mortality** | *Benin,* Burundi, Cameroon, Chad, *Ethiopia, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Tanzania, Zambia* (13) | *Bangladesh,* Cambodia, *Egypt, India, Indonesia, Morocco, Nepal, Philippines,* Yemen (9) | Same as above (21) | *Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Peru* (10) | 53 (57%) |
| **3.3: Reduction in maternal mortality** | *Benin,* Burundi, Cameroon, Cape Verde, Chad, *Ethiopia, Kenya, Malawi, Mali, Mozambique, Niger* (11) | Bangladesh, Cambodia, *Egypt, India, Indonesia, Morocco, Nepal,* Philippines, Yemen (9) | Same as above (21) | *Bolivia,* Costa Rica, *Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Peru* (11) | 52 (56%) |
| **3.4: Reduction in STI/HIV transmission among key populations** | Botswana, Cameroon, *Ethiopia, Ghana, Kenya,* Lesotho, *Malawi,* Rwanda, *Senegal,* Swaziland, *Tanzania, Uganda, Zambia, Zimbabwe* (14) | Bangladesh, India, Indonesia, Philippines (5) | Same as above (21) | *Brazil, Dominican Republic, Honduras, Jamaica, Nicaragua, Peru* (6) | 46 (50%) |

[a]Sustainable development countries are in italics. Excludes regional and global Bureaus with population, health, and nutrition objectives.

## Box 4.1 Countries in Transition: USAID Promotes Health Sector Reforms in the New Independent States

USAID is at the forefront of health care reform in the new independent states of the former Soviet Union. Health financing and policy reforms support the transition to democratic and free-market economies.

- Privatization. USAID supports the creation of independent, private medical and dental practices to promote competition and encourage consumer responsibility and choice. In Kazakhstan, the Agency helped privatize the state-run pharmaceutical company, auction 24 retail pharmacies, sell 16 retail pharmacies, and create an Independent Pharmacists' Association.
- Insurance operations and regulation. Through a USAID-supported training program, private insurance companies in the Czech Republic received the tools to analyze financial risks and implications of changes in their enrollments, premiums, and covered benefits.
- Hospital payments reform. USAID-supported studies in selected hospitals in Bulgaria and Hungary provide treatment cost data so that local governments and health insurance funds can determine on a sound basis prospective payments to the hospitals in their jurisdictions.
- Cost accounting. As a result of USAID's assistance, hospitals in Albania can now calculate costs per patient per department. In Russia, the Agency helped install Russian-language cost-accounting software in medical facilities, enabling managers to track costs and do cost-based budgeting for the first time.

Working with a variety of partners to implement programs. USAID works with governments, NGOs, and the private commercial sector, promoting the most appropriate role for each in response to client needs, to ensure the most effective, sustainable programs. Under the New Partnership Initiative adopted in 1995, the Agency is placing greater emphasis on involving communities, private voluntary organizations (PVOs), and local NGOs in program design and implementation.

Leveraging resources of other donors. USAID programs working in the sector engage other donors to support either complementary activities or activities that were initiated with USAID funding, thereby extending the impact of such funding. For example, under the framework of the U.S.–Japan Common Agenda for Global Perspectives, USAID has supported the Government of Japan's commitment to increase its funding for the population and health sector. As a result, in 1995 the government invested $500 million in population and health programs, including collaborative assessment, planning, and design activities carried out with USAID Washington, field offices, and Tokyo. USAID has

## Box 4.2 USAID, World Bank, Indonesian Government Collaborate on Quality Assurance

In March 1995, Indonesia and the World Bank signed a $134 million loan project to improve the equity and quality of health care in five Indonesian provinces. To develop the country's first quality assurance initiative, Ministry of Health officials and the World Bank turned to USAID, the recognized leader in the field.

USAID technical staff participated in World Bank missions to design the project, which reflects lessons learned through the Agency's support to quality assurance initiatives in more than 20 countries. USAID organized and supported a field test of possible approaches in 10 clinics. Within a few months, the clinic staff produced striking improvements in quality of care. Direct observation of almost 800 interactions between patients and health providers showed that the average level of compliance with quality standards rose from 52 percent to 87 percent. The experience at the local level validated quality assurance efforts for the Indonesia health system. The Indonesian government is now considering extending the project's model to an additional 14 provinces.

played a central role in this year's inauguration of the UN Joint Program on HIV/AIDS, which will help mobilize international resources to combat the pandemic.

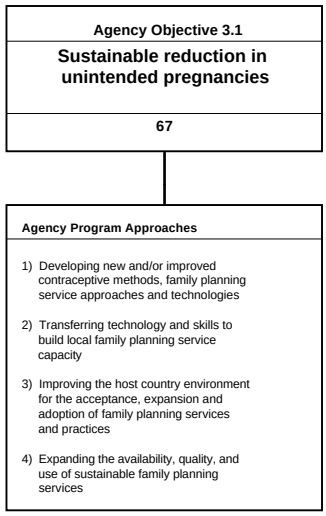
In the past year, notable results have been reported that demonstrate progress in achieving each Agency population, health, and nutrition objective. Investments in recent years have led to significant returns, highlighted below.

# Sustainable Reduction in Unintended Pregnancies

More than one third of all births in the developing world resulted from unintended pregnancies. If all unintended pregnancies were averted, the total fertility rate (or the average number of births per woman) would drop from 3.7 to 2.5. A fertility rate of 2.1 is considered replacement level. These unintended pregnancies often harm the health and well-being of women and their families. High fertility also translates into rapid population growth, which impedes economic growth, contributes to environmental deterioration, and strains fragile political and social institutions.

High rates of unintended pregnancies are caused by a number of factors, including lack of information about and access to family planning services, low status of women, low educational status (particularly for women), poverty, and lack of male support and involvement in use of family planning. USAID aims primarily to expand availability, quality, and access to and use of family planning services, while addressing socioeconomic constraints through its other programs.

**Figure 4.2**
**Number of Country Programs Contributing to Agency Objective 3.1**



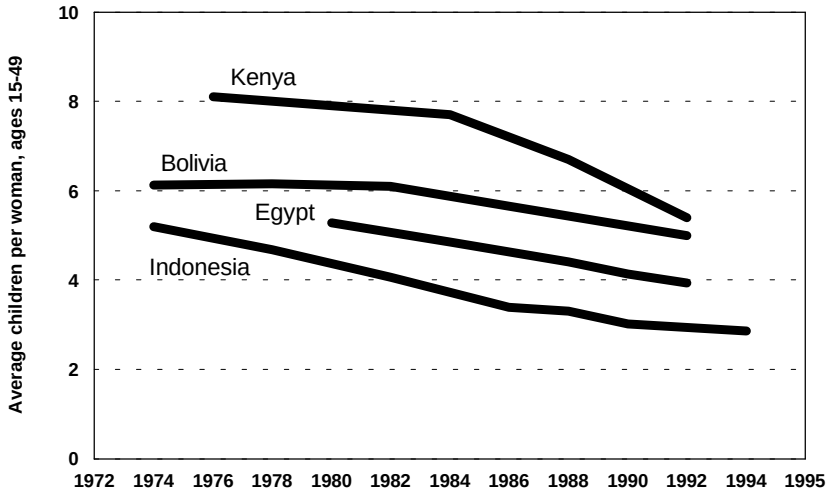

## *Expanding Service Availability, Quality, and Use*

Expanding the availability, quality, and use of family planning services is one of the most direct, cost-effective approaches to reducing unintended pregnancies and decreasing fertility rates. Steady progress has been made in use of family planning in countries that have been major recipients of USAID assistance. Increased contraceptive use, measured by the contraceptive prevalence rate, translates into reductions in the total fertility rate.

Family planning programs have an effect in diverse cultural and socioeconomic settings, as revealed by recent findings for countries where USAID has been a major donor:

- In Bangladesh, the contraceptive prevalence rate is 45 percent and the total fertility rate is 3.4. In 1975, the contraceptive prevalence rate was only 8 percent, and the total fertility rate was 6.1.
- From 1992 through 1995, Morocco's contraceptive prevalence rate increased from 42 percent to 50 percent, while the total fertility rate declined from 4.0 to 3.3.
- Colombia's contraceptive prevalence has increased from 64 percent in 1986 to 72 percent in 1995. The total fertility rate is now 2.7—down from 6.3 in 1965 when USAID's assistance began.
- Bolivia, one of the poorest countries in Latin America, has seen its contraceptive prevalence rate jump from 30 percent in 1989 to 45 percent in 1994.

Figure 4.3. Fertility Trends in Selected Countries




*Source:* Demographic and H ealth Surveys and other surveys.

Increasing the availability of contraceptives through an effective, reliable distribution system is critical. USAID is a leader in helping countries develop and implement effective commodity management systems that ensure the right amounts of contraceptives get to the right places at the right time. In Tanzania, USAID's assistance resulted in a doubling of facilities offering a range of contraceptive methods, with almost all facilities offering at least pills and condoms. In two years, from 1992 to 1994, the contraceptive prevalence rate in Tanzania doubled from 6.6 percent to 13.1 percent. USAID's efforts to manage logistics are being expanded in a number of countries to include supplies for the entire health program.

Demand for services is also crucial in expanding use of family planning. Desired family size is dropping rapidly in countries assisted by USAID. It is much lower than actual family size in every country where national surveys have been conducted. At the same time, whether men and women avail themselves of services depends on how well informed they are about the benefits of family planning and the services available. USAID has been particularly effective in supporting innovative use of communications to disseminate information. Communication strategies increasingly address not only family planning behavior but also other dimensions of reproductive health, such as maternal health and prevention of sexually transmitted infections (STIs) and HIV.

In the past year, USAID-supported programs have trained thousands of family planning service providers, including doctors, nurses, and midwives, in clinical procedures and counseling. In other initiatives, USAID has supported introduction of an innovative client-oriented management technique that has helped service providers identify and introduce quality-of-care improvements in more than 20 countries. Regional conferences with program managers in Africa, Asia, and Latin America have increased awareness of the ingredients of quality care and have led many participants to adopt new technical guidelines and other quality-of-care measures.

In the Minya Governate in Egypt, the contraceptive prevalence rate was one of the lowest in the country, owing to misrepresentation of religious views on family planning, rumors and misinformation on contraceptive methods, and poor quality of services. An information, education, and communication

campaign trained religious and community leaders and service providers to improve the image and quality of services. Counseling was emphasized, and the number of community meetings on family planning increased. As a result, the contraceptive prevalence rate increased from 23 percent to 30 percent in 18 months.

## Box 4.3 How Communication Changes Behavior

USAID-supported communications initiatives have helped family planning become a household word, a community norm, and an informed individual choice. In Bolivia, a broad National Reproductive Health Communication program, led by the Ministry of Health, has resulted in greater-than-expected increases in the three areas of change: knowledge, attitudes, and behavior.

According to the ministry, provision of reproductive health services (family planning, prenatal and postpartum care, safe delivery, and STI prevention and treatment) rose from 11,800 clinic visits in 1993 to 29,200 visits after the 1994 communications campaign (an increase of 147 percent). Among men, important decision-makers in Bolivian families, the intention to use family planning services rose from 28 percent to 51 percent. Men's actual use of services more than doubled, from 4.1 percent to 8.6 percent.

Participation of village women through their social network is the basis for an innovative program in Bangladesh called the *jiggasha* approach (from the Bangla word "to inquire"). Trained field workers help establish jiggasha groups by locating key village women and organizing meetings in their homes. A three-year study (1989–92) compared increases in contraceptive prevalence rates and found the increase in jiggasha villages was 140 percent greater than in control villages. The largest contraceptive prevalence rate increase was for women who participated in jiggasha meetings and also had some type of field worker contact: from 28 percent to 52 percent. The Ministry of Health, whose officials from Trishal district developed the approach with USAID, is extending it to other areas.

### *Transferring Technology and Skills to Build Local Capacity*

Transferring technology and skills to build local capacity helps ensure the sustainability of efforts to reduce unintended pregnancies. The following examples illustrate USAID contributions to local capacity-building:

- A network of 20 clinics in Ecuador now recovers more than 65 percent of its annual costs. Nineteen of the clinics are managed by women.
- The Social Marketing Company in Bangladesh no longer requires long-term external technical assistance to provide contraceptives through market channels to those willing to pay for them.
- The national family planning agency in Indonesia, established with assistance from USAID, now provides training for family planning managers from all over the world.

### *Developing New and Improved Approaches and Technologies*

USAID supports developing new and improved contraceptive methods and family planning service approaches. Improving existing methods and developing and adopting new contraceptives is a long-term process. The Agency's contraceptive development research activities range from generating new methods to clinical evaluation. The Agency also assists in the introduction and adoption of these methods by national service delivery programs. Results over the past year demonstrate the benefits of continuing this investment.

USAID-supported clinical trials on the safety and effectiveness of the Reality female condom, for instance, led the U.S. Food and Drug Administration to grant approval for marketing the product in the United States, paving the way for its introduction in developing countries. This is the first female-controlled barrier method that shows promise in preventing both pregnancy and sexually transmitted infections, including HIV/AIDS.

Data from USAID-supported research provided to the U.S. Food and Drug Administration this year are expected to result in

approval of a new implant system for the long-acting contraceptive Norplant. The modifications will make Norplant easier to insert and remove. The changes improve the method for all users and make it better suited to use in developing countries.

USAID's operations research has provided information on the effectiveness of different approaches, the cost-effectiveness of family planning programs, and the integration of family planning, maternal health, and STI prevention approaches. These findings have led to the development and implementation of programs that more effectively meet the needs of USAID's ultimate customers. For example in Navrongo, Ghana, a new field research station is testing a package of village health services. Because the services better met client needs, the contraceptive prevalence rate increased in just 10 months from 0.2 percent to 10.4 percent.

A study of services in 100 family planning centers in India led to actions by the Ministry of Population Welfare to improve quality of care through changes in guidelines for prescribing contraceptives and improvements in the training curricula for village-based family planning workers.

### *Improving the Host Country Environment*

Improvement of the host country environment is fundamental to the expansion and institutionalization of family planning at both the national and community levels. The need for organized family planning programs is now widely accepted in the countries where USAID works.

Achieving sustainability so these programs can continue after outside assistance has ended depends to a great extent on the host country environment. That includes the government's commitment to family planning and its ability to mobilize private and public sector resources as well as to provide a policy framework that supports access to services and quality services. In Indonesia, Morocco, and Egypt, more and more couples are turning to the private sector for contraceptives, indicating a broader acceptance of family planning, a willingness to pay for services, and a government policy open to private sector activities. This will help relieve the burden on the public sector for delivering services.

#### Box 4.4 Working Toward Sustainability

Since 1991, USAID has helped private family planning associations in a number of Latin American countries make the transition to self-reliance in the face of decreased outside funding. This transition has been accomplished in part because of the Agency's support of the integration of STI and HIV prevention activities into the associations' family planning programs. More than half the associations assisted are now self-sufficient.

Lessons learned in implementing this transition include the need for managers to be able to control their resources, so that they have the flexibility to use their funds more efficiently.

Service delivery and financial goals of programs must be balanced. Programs must be decentralized so that managers have incentives to provide better services, and a strong management system must be in place. Programs must also be client-oriented and stress quality of care. While the family planning associations in Colombia and Brazil were able to increase the volume of services through the transition period, those in Mexico and Chile experienced declines.

Finally, planning for sustainability should begin early. Profamilia of Colombia, the most successful of the associations, charged for all services from the beginning, monitored and controlled costs, and developed successful income-generating activities beyond family planning.

In Bangladesh, with technical support from the bilateral USAID program, local government and community contributions to family planning have increased. An increased proportion of NGO costs are covered by revenues.

In Guatemala, USAID-supported analyses helped justify a decision of the social security health service system to add family planning to the services available to families of employed people.

### Box 4.5 India: National Survey Completed in World's Second Most Populous Country

In 1995, results from the largest and most comprehensive survey ever undertaken in India—in fact anywhere—were published. The survey was carried out by the Indian Ministry of Health and Family Welfare through 18 population research centers around the country with technical assistance from USAID. Data were collected from all 24 states and the National Capital Territory of Delhi. For the first time, comparable data exist for all states in India, providing policymakers, program managers, and researchers with valuable information about fertility, infant and child mortality, family planning practices, maternal and child health care, and utilization of services for mothers and children.

Between April 1992 and September 1993, teams interviewed a representative sample of almost 90,000 women aged 13 through 49.

The survey provides convincing evidence that fertility has declined throughout the country, but there are striking differences among states and regions. Fertility in south and west India is considerably below the national average of 3.4. In Uttar Pradesh, a state in northern India where USAID began a major family planning effort, total fertility is 4.8. Nationwide, the survey found that only 35 percent of all children are fully immunized; although regional differences are substantial. In some states more than 60 percent of children are fully immunized; others have fewer than 25 percent. The survey also found that in general knowledge about HIV/AIDS is very low.

This information will help guide program and policy decisions for India's public health efforts. The world's second most populous country, India will overtake China in population size early in the next century. The survey results provide an important marker for India's progress, whose success will influence global progress.

## Sustainable Reduction in Child Mortality

USAID's child survival programs develop and apply cost-effective, sustainable interventions to reduce and prevent the principal causes of illness and death in infants and children. From 1985 to 1992, USAID's Child Survival Initiative led to a 10 percent decline in infant mortality rates in USAID-assisted countries. Life-saving health services supported by the Agency and its partners prevent more than four million infant and child deaths annually. Declining infant and under-5 mortality rates, as shown in figure 4.5, reflect USAID's critical role in developing and introducing state-of-the-art child survival interventions, as well as continuing advances toward the goals established by the 1990 World Summit for Children.

Despite the considerable success of child health programs, each year in the developing world an estimated 12 million children die of preventable causes. One out of every

**Figure 4.4**
**Number of Country Programs Contributing to Agency Objective 3.2**

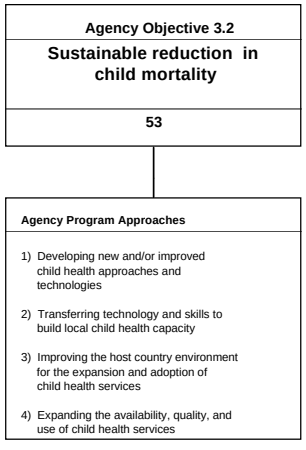
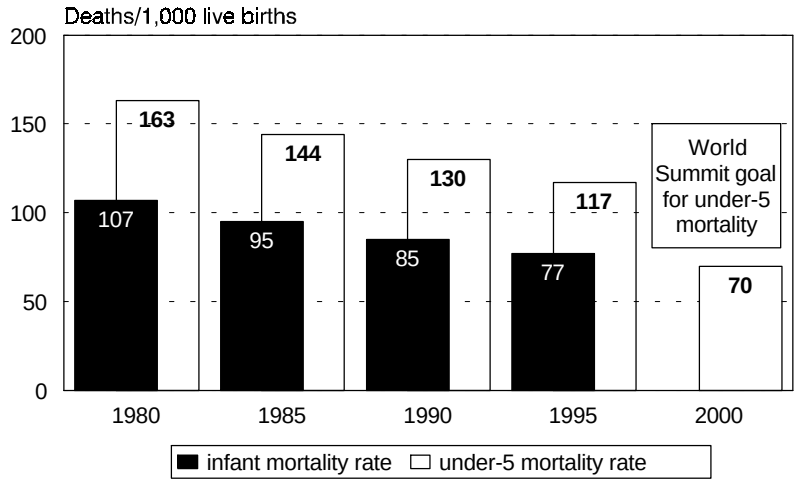


Figure 4.5 Infant and Under 5 Mortality Rates for All Developing Countries (Excluding China), 1980-95




*Source:* Center for International Health Information, Health Statistics˝Database, 1995.

eight children born in the developing world today does not live to the age of 5. Most of these deaths are due to a handful of causes: pneumonia, diarrhea, vaccine-preventable diseases, and neonatal sepsis. Malnutrition is a major contributing factor in more than half these deaths. To achieve a sustainable reduction in child morbidity and mortality, USAID applies four approaches to prevent and control common childhood illnesses and strengthen systems to promote child health.

## *Expanding Service Availability, Quality, and Use*

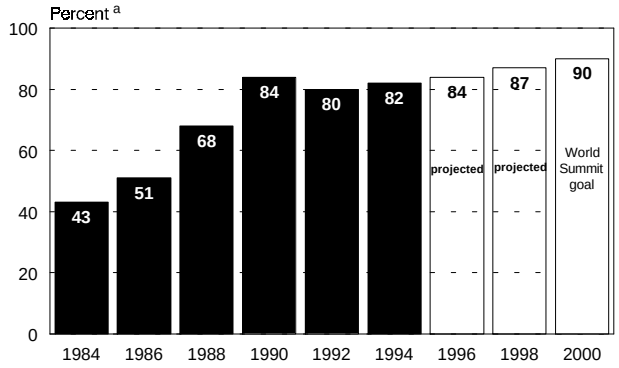
USAID is at the cutting edge of establishing effective prevention and treatment protocols for acute respiratory infections, the leading cause of death among children under 5. USAID supported development of a new community-level diagnosis, treatment, and counseling protocol, laying the foundation for respiratory infection control programs in an increasing number of countries. Program activities in 59 developing countries enable families to care for their children at home and to know when and where to seek additional medical care.

The Expanded Program for Immunization, developed with USAID's financial and technical support, has become a cornerstone of child health programs. Studies in 1980 found only 20 percent of the developing world's children protected through immunization. Today, 80 percent of these children are protected against the major vaccine-preventable diseases.

In 1994, polio was officially declared eradicated in the Western Hemisphere. USAID is the major donor for disease control activities and participates in the global initiative for the worldwide eradication of polio. Lessons learned from the Western Hemisphere's eradication of polio are being applied to a measles elimination effort in Latin America, initiated in 1995.

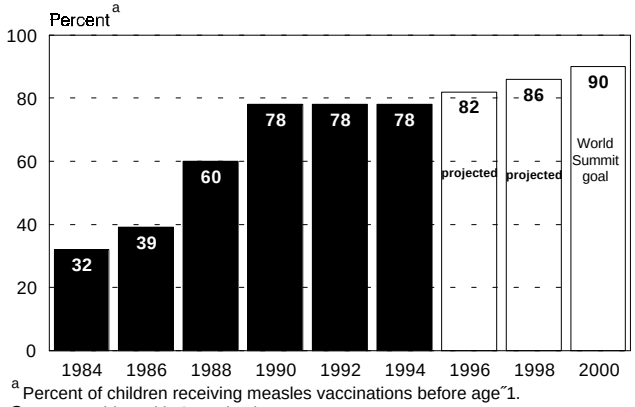
Bangladesh's immunization program increased the percentage of fully immunized children under 1 from 5 percent in 1985 to 70 percent in 1993. Coverage in densely populated slums, however, may lag behind citywide immunization coverage rates by 20 percent or more, failing to block disease transmission. Such gaps are addressed by special efforts, such as the USAID-assisted National Immunization Days in the spring of 1995. That activity provided at least one dose of oral polio vaccine to 91 percent of Bangladesh's children.

Figure 4.6. Polio 3 Vaccination Coverage Rates for All Developing Countries 1984-94




a Percent of children receiving polio 3 vaccinations before age 1.
*Source:* World Health Organization.

Figure 4.7. Measles Vaccination Coverage Rates for All Developing Countries 1984-94




a Percent of children receiving measles vaccinations before age˜1.
*Source:* World Health Organization.

In sub-Saharan Africa, after several years of declining immunization rates, reports from 1994 indicate a steady increase in coverage corresponding to the progressive development of sustainable health services delivery systems. Eighteen countries, representing 31 percent of the population in the region, have increased immunization coverage.

Malnutrition and micronutrient deficiencies also contribute to child morbidity and mortality. Approximately 43 million children under 5 worldwide are at risk for blindness because of vitamin A deficiency. Ensuring adequate vitamin A intake can prevent 400,000 cases of blindness per year. In vitamin A-deficient areas, child mortality can be reduced by 20 to 25 percent, averting up to 2.5 million deaths per year, by mitigating the effects of diseases such as measles and diarrhea.

In Nepal's National Vitamin A Deficiency Prevention and Control Program, based on extensive USAID-sponsored field research, Female Community Health Volunteers distribute vitamin A capsules. In 1995, approximately one million children received capsules from these volunteers. To date, more than 12,000 volunteers have been trained in distribution techniques, and coverage in participating districts has been as high as 90 percent.

USAID collaborated with Indonesia's Ministry of Health to train members of a national Islamic women's NGO to increase consumption of vitamin A capsules by children under 5. Training in interpersonal communication skills helped increase consumption in targeted communities more than five times, leading to 70 percent coverage.

USAID works extensively with PVOs through the Child Survival Grants Program. Since its inception in 1985, this program has provided services to an estimated six million women and children in developing countries. The program currently provides 49 grants to 22 U.S. organizations. These groups are conducting 72 projects with an average beneficiary population of more than 100,000 in 31 developing countries. Surveys indicate these projects have contributed to improving home management of diarrhea and increasing immunization coverage.

## *Developing New and Improved Approaches and Technologies*

USAID played a leading role in the research and development of low-cost interventions to treat diarrhea, another major cause of death among children. Oral rehydration ther-

apy (giving rehydrating fluids by mouth), has become a mainstay of diarrheal disease programs, averting approximately one million child deaths annually. In developing countries, appropriate use of oral rehydration therapy for diarrhea has increased from 18 percent in 1985 to 51 percent in 1993. In 1995, USAID began supporting field trials of a new formulation of oral rehydration solution, modifying the quantities of sugar and salt to improve absorption in cases where the standard solution proved ineffective.

USAID has supported groundbreaking research in the development and testing of a new, integrated approach to treating the sick child. In developing countries, more than half of all children brought to health facilities have more than one illness or condition requiring treatment or counseling. The integrated approach targets pneumonia, diarrhea, malaria, measles, and malnutrition, which together cause almost three fourths of deaths among children under 5 in developing countries. The World Bank estimates that integrated management of the sick child is among the most cost-effective health interventions available in developing countries.

USAID invests in developing, testing, and introducing health technologies, making programs more cost-effective and making health services safer and more widely accessible. For example, SoloShot, an autodestruct, single-use syringe developed with USAID support, addresses a critical problem for immunization programs: transmission of bloodborne diseases (such as AIDS and hepatitis) through contaminated needles and syringes. After a vaccine is injected, SoloShot's plunger automatically locks so that the syringe and needle cannot be reused. As of June 1995, the United Nations Children's Fund (UNICEF) had distributed more than 30 million SoloShot syringes to developing country immunization programs. This technology is applicable for other injectable medicines for contraception and sexually transmitted disease control.

### *Transferring Technology and Skills to Build Local Capacity*

A major challenge for the 1990s in USAID's child survival programs is to promote programs that preserve and build on progress to date while decreasing host country dependence on donor-provided resources and technical assistance. Capacity-building by transferring skills promotes sustainable child survival programs.

Breastfeeding saves up to six million infant lives every year. Exclusively breastfed infants have on average 2.5 fewer episodes of childhood diseases; they are 4 times less likely to die of acute respiratory infections and up to 25 times less likely to die of diarrheal disease. USAID programs have trained 563 health professionals from 53 countries as

### Box 4.6 USAID Develops Technology to Ensure Vaccine Quality, Reduce Wastage

The USAID-developed Vaccine Vial Monitor is one of the most significant innovations in the history of immunization technologies. The temperature monitor, applied directly to a vial by the vaccine manufacturer, changes color with heat exposure and enables a health worker to verify whether the vaccine is usable.

To remain potent, vaccines need to be properly refrigerated throughout their distribution process, from the manufacturer to the village. Current guidelines require workers to discard vaccines after a certain time because there is no way to determine if this "cold chain" has been broken. Now, with the monitor, the health worker can easily tell if a vial has had too much heat exposure. The monitor will ensure that children receive only potent vaccines and will increase coverage, permitting health workers to transport vaccines to remote locations without refrigeration.

As of January 1996, all vials of oral polio vaccine that meet World Health Organization standards are to be fitted with Vaccine Vial Monitors. UNICEF is expected to order 700 million doses of oral polio vaccine with monitors in the next two years and expects to save $40 million in reduced wastage rates. Monitors for additional vaccines used by global immunization programs are in the final stages of testing and should be available within the year.

lactation management education trainers. These trainers in turn have trained almost a million health workers and advocated policy reforms in their own countries.

By 1999, USAID's global cascade approach to breastfeeding promotion is projected to reach more than 83 million mother–infant pairs. With USAID's support, 22 countries now have active national policies and programs that protect, promote, and support breastfeeding. Six regional and seven national lactation management education centers have been established, and six countries have incorporated the lactational amenorrhea method of family planning into their national family planning policies.

USAID's innovative "Partnership" Program links more than 100 hospitals, health systems, and medical schools in 35 U.S. communities with more than 75 counterpart institutions in the new independent states and Central and Eastern Europe. To date, U.S. partners have donated more than $65 million to the program, including more than $21 million in equipment and supplies. The partnerships contribute to child survival. From 1993 through 1995, the Kiev–Philadelphia partnership helped achieve a 62 percent decrease in perinatal mortality. The Lviv–Buffalo partnership contributed to a 50 percent drop in in-hospital mortality rates for preterm infants.

Both donors and developing country governments recognize that they must consider the fundamental causes of inadequate health care. While preventive and clinical interventions are important, only by addressing the underlying problems of the health care system can health improvements be achieved and sustained. USAID therefore targets health policy and sector reforms to reinforce cross-cutting health sector issues such as financing, including cost recovery and insurance, quality assurance, pharmaceutical management, and involvement of the private sector.

In Indonesia, Kenya, Morocco, and Niger, health services are generally free. USAID supported the initiation of pilot projects that required patients to pay part of the cost of a clinic visit. When clinics charged fees, quality of care, use, and sustainability of services improved. Clinics used the income to buy drugs and improve services. With improved quality, clinic use increased. As a result of these pilot programs, concluded in 1994, cost recovery systems are being expanded. Kenya and Niger are launching nationwide programs.

Following the collapse of the former Soviet Union, immunization coverage fell drastically as the new independent states struggled with the lack of systems to replace centralized government control. In Central Asia, Georgia, and Moldova, USAID helped the ministries of health modernize immunization schedules, making them more consistent with the international standard established by the World Health Organization. That cut the number of recommended childhood vaccinations, which means fewer visits to health centers and significant savings in vaccines and syringes, contributing to more efficient, sustainable immunization programs.

### *Improving the Host Country Environment*

A supportive host country policy environment is essential to the success of child survival programs. USAID assistance develops and strengthens host country political commitment, promotes participation of local organizations, and encourages increased allocation of resources to the sector.

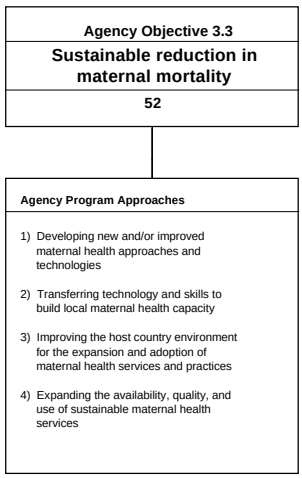
USAID supported development of a computer software model that is a powerful tool for nutrition policy analysis and advocacy. By summarizing local data and scientific literature, the software demonstrates to policymakers how improved nutrition enhances human and economic development. During 1994 the software was used in the Philippines to build networks among nutrition agencies. These networks advocated increased resources to address protein-energy malnutrition and micronutrient deficiencies. A French version, produced in 1994, permits use of the software in Francophone countries in the Sahel.

USAID-sponsored research contributes to policy improvements that promote child health. Malaria is a leading cause of illness and death in Africa, where 85 percent of all cases occur. Infants, children, and pregnant

women are at particular risk. During the past decade, USAID and the Centers for Disease Control and Prevention supported the Government of Malawi's efforts to control malaria. Applied research showed high levels of resistance to chloroquine, which has been the treatment of choice. This information led Malawi to become the first country in sub-Saharan Africa to make sulfadoxine-pyrimethamine the first line of treatment. Hospital data show in-patient malaria deaths decreased by 40 percent and hospitalization dropped 20 percent. Because of Malawi's experience, other countries in the region have initiated similar malaria drug policy analysis.

The Vaccine Independence Initiative created a fund for countries to buy vaccines using local currency, while providing technical support to help them forecast their vaccine needs. USAID's initial $1 million grant to UNICEF in 1992 has been augmented by contributions totaling more than $4 million from the governments of Australia, Japan, the Netherlands, New Zealand, Norway, and the United Kingdom. UNICEF added $4.3 million from its general fund. The initiative is running in 11 countries: Morocco joined in 1992, the Philippines in 1993, Bangladesh and Burundi in 1994, and Benin, Fiji, Ghana, Malawi, the Solomon Islands, Tanzania, and Vanuatu in 1995. Morocco, previously completely dependent on donors for vaccines, now purchases all of its vaccines through the fund. Increased capitalization of the fund means more countries can participate. This initiative enhances countries' vaccine security and the sustainability of critical child immunization programs.

**Figure 4.8**
**Number of Country Programs Contributing to Agency Objective 3.3**




# Sustainable Reduction in Maternal Mortality

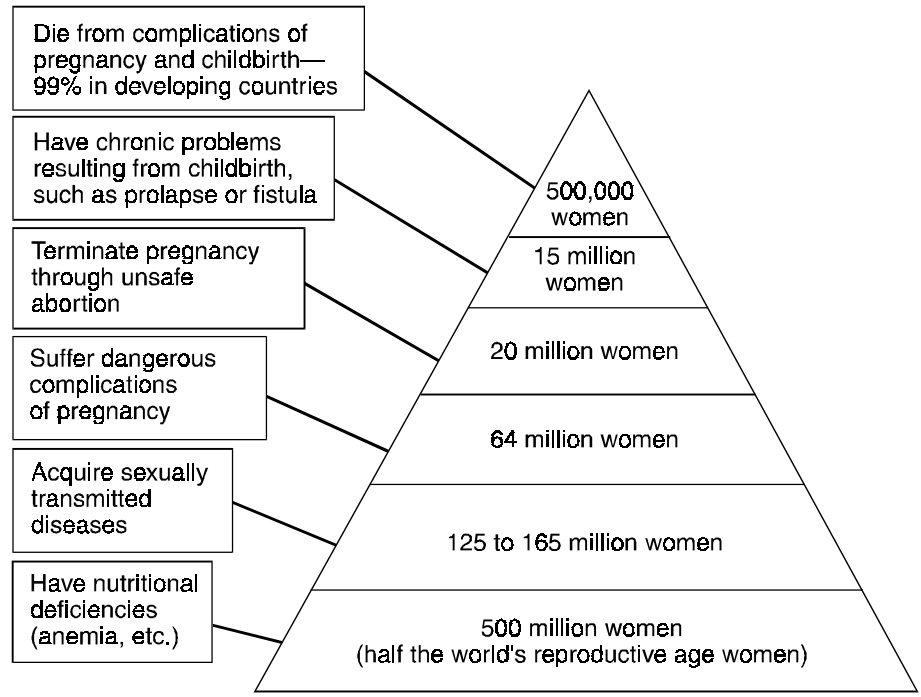
Despite improvements in health in developing countries, maternal mortality remains high. Almost all deaths during pregnancy and childbirth occur in developing countries. The average of 450 to 500 maternal deaths per 100,000 live births is roughly a hundred times that in industrial countries. In Kenya and Bangladesh, for example, the average is 500 to 650 deaths for every 100,000 live births. In Sweden and the United States, 5 to 7 maternal deaths occur per 100,000 live births. For each maternal death, there are an estimated 100 cases of acute morbidity with long-term repercussions for women's health and well-being. Figure 4.9 illustrates the extent of the reproductive health problems that afflict women.

The most common obstetric causes of maternal death in developing countries are hemorrhage, infection, hypertensive disease, obstructed labor, and the consequences of unsafe abortion. Poor maternal nutrition is an underlying cause of much morbidity and mortality. There are interventions to prevent the major complications of pregnancy and delivery, including family planning and appropriate prenatal and postpartum care. The challenge is to ensure that these services, and the knowledge of when they should be used, are available and accessible to women, their families, and their communities.

Through its efforts to achieve sustainable reduction in maternal mortality, USAID works to

- Increase access to reproductive health services, specifically basic essential ob-

**Figure 4.9 Women's Reproductive Health: Annual Statistics**




*Source:* The Mothercare Project.

stetrical care, through attention to cultural and logistical barriers to use

- Improve the quality of reproductive health care, specifically basic essential obstetrical care, so that services are provided in an appropriate and timely manner in response to women's health needs
- Develop and test models for integrated reproductive health services, including family planning, basic essential obstetrical care, and services to decrease sexually transmitted diseases and improve the nutritional status of women
- Improve the policy environment and build institutional capacity to promote safe pregnancy care

Reducing maternal mortality, and measuring the results of those efforts, pose particular challenges. Most deaths occur during labor and delivery and in the immediate postpartum period, when most women in developing countries prefer to be at home. It is difficult to identify and reach those who need services and to maintain accurate fatality records. Proxy indicators, such as the percent of women who have received prenatal care and the percent who have a professional attendant at birth, register the level of contact between women and the health care system during pregnancy. Comparing these data with estimated births indicates the availability and use of maternity care in a country. Maternal mortality typically varies inversely with the use of prenatal and delivery care provided by medically trained people.

Sustainable reduction in maternal mortality is a more recent strategic objective for USAID. But many programs, both in the health sector and in other sectors, such as Women in Development, have contributed to the health and well-being of women. In 1995, 34 programs reported strategic objectives aimed at reducing maternal mortality. USAID's initial contribution to the sector in-

volved collecting baseline data and developing indicators to monitor the impact of interventions. In many countries, the early phases of program implementation have involved developing, testing, and evaluating new approaches to delivering critical information and services. In the examples that follow, USAID has helped validate interventions that can be adopted by other countries and programs.

## *Expanding Service Availability, Quality, and Use*

Communications techniques to encourage behavior change are designed and tested through USAID activities in selected countries. These interventions ensure that women, their husbands, mothers-in-law, and others who influence decision-making learn about the possible complications of pregnancy and know where and when to seek lifesaving obstetrical care.

USAID-supported activities in expanding service availability and use have yielded positive results. Self-diagnosis of maternal and neonatal health problems, which USAID introduced in Bolivia, succeeded in increasing the use of modern contraception nearly 30 percent within one year and in decreasing the number of perinatal deaths by more than 50 percent. A consortium of 14 NGOs that is a partner with USAID is transferring this technique to its members, which together cover nearly half the rural population in Bolivia.

In Honduras the reported ratio of 221 maternal deaths per 100,000 live births is the worst in Central America. USAID support for prenatal services and safe delivery care there has contributed to promising trends in increasing referrals of women with high-risk pregnancies to health centers.

From 1989 to 1994, referrals by traditional birth attendants to health centers increased from 35 percent to 53 percent. Referrals from rural health centers to hospitals increased from 22 percent to 60 percent. During the same period, the percentage of rural health centers providing postpartum checkups in the preceding month increased from 69 percent to 91 percent. Although the infant mortality rate in Honduras is average for the region, neonatal mortality in the first month of life constitutes more than 50 percent of infant mortality. Thus, the improvement in referrals of high-risk pregnancies can be expected to reduce maternal and infant deaths.

To reduce the morbidity and mortality associated with pregnancy and delivery, the quality of care in referral facilities must be upgraded.

USAID works in Egypt in collaboration with the government and other international agencies to combat nutritional anemia caused by iron deficiency among pregnant women. Since June 1994, district-level process improvement teams have used problem-solving tools to identify problems, such as the absence of nutritional education and counseling at health clinics. As a result of the teams' suggestions, an information and education campaign in Luxor improved mothers' knowledge of nutrition. After three months, the percentage of pregnant women with iron deficiency disorders who understood the nutritional messages rose from 25 percent to 80 percent. Owing in part to this intervention, in six months the number of pregnant women with iron deficiency disorders at one clinic declined from 122 to 31, a 75 percent decrease.

## *Transferring Technology and Skills to Build Local Capacity*

USAID plays a leadership role in developing and testing methods and curricula to train health professionals in reproductive health practices. These capacity-building efforts target private sector providers who have often been overlooked by public sector initiatives, but who are the primary source of care in many countries. USAID has begun activities with PVOs and professional organizations in Bolivia, India, Indonesia, and Malawi to build their capacity to deliver reproductive health services targeting women's nutrition and sexually transmitted infections.

Several countries in Asia and the Near East are seeking to reduce high maternal mortality through improved training for birth attendants coupled with campaigns to increase awareness of the importance of prenatal care

and assistance from a trained health care worker at delivery. In Egypt the percentage of pregnant women receiving prenatal care rose from 14 percent in 1988 to 53 percent in 1993, and the percentage of births assisted by trained personnel increased from 25 percent in 1991 to 65 percent in 1993.

With USAID support, 11 family planning training centers have been established in the five Central Asian republics, and in Moldova, Russia, and Ukraine. The centers provide contraceptive technology training, clinical skills, improvement of trainers' skills, and updated information on contraception and women's reproductive health to increase contraceptive use and thereby reduce abortions and maternal deaths. Contraceptive services are provided during postpartum and postabortion care. Information, education, and communication programs, developed with USAID's support, target health providers and clients to promote the safety and use of contraceptives. In Russia and Ukraine, abortions exceed live births by two to one, and in Central Asia an estimated one out of three pregnancies ends in abortion. USAID's programs will reduce the need to use abortion for fertility control, a contributing factor in maternal mortality rates of 45 to 49 per 100,000 women, nearly 10 times the maternal mortality rates in the United States and Western Europe.

With USAID's assistance, pharmacists from newly privatized enterprises in the new independent states are being trained to promote and sell reasonably priced contraceptives. Nearly 2,000 family health providers and health professionals have been trained to counsel clients on modern contraceptive methods. A 1995 study in three Kazakhstan urban areas found that 34 percent of reproductive age women were using intrauterine devices, an increase from a 20 percent prevalence rate for this method in 1988 at the end of the Soviet era.

### *Developing New and Improved Approaches and Technologies*

USAID develops new models for delivering prenatal and lifesaving obstetric care, and tests and adapts them during extensive field evaluations. The models test the use of new technologies such as slow-release iron supplements for anemia, increased use of nonphysician health personnel, improved methods of detecting and referring women with pregnancy-related complications, and increased attention to linking safe pregnancy with family planning and other reproductive health services.

## Box 4.7 In Nepal, Home Delivery Kits Promote Maternal Health

In Nepal, women frequently give birth on unclean surfaces such as dirt floors or old sacks. They are often assisted by someone untrained in health, whose only tools might be a rusty sickle and an unsterile piece of string. Infections, including fatal tetanus, are the consequence for far too many women and infants. The maternal mortality ratio for the country is an extremely high 850 deaths per 100,000 live births.

USAID-sponsored activities produced one solution to this problem. Information on Nepalis' knowledge, attitudes, and practices concerning home delivery was used to develop a single-use home delivery kit. Pregnant women tested a prototype, and their reactions guided final modifications. The kit offers clean delivery supplies and instructions for their proper use. It includes a plastic sheet for covering the ground, a bar of soap, a razor blade, a sterile surface for cutting the umbilical cord, sterile cord ties, and pictorial instructions for using each item in the kit. The inexpensive kit is available in small shops and local markets.

Instead of selling an expected 600 kits during a test-market, 2,500 were sold. The Government of Nepal has endorsed the kit, a private women-owned Nepali company has begun to manufacture it, and more than 100,000 kits have been distributed to markets throughout the country. During a 1995 tour of several Asian countries, First Lady Hillary Rodham Clinton praised the home delivery kit, citing it as an example of foreign aid that makes a difference.

In Nairobi, Kenya, nearly 90 percent of women who tested positive for syphilis, along with more than 50 percent of their partners, received treatment within one antenatal visit because of diagnosis using rapid plasma reagin cards. This intervention was found to be both technically feasible and cost-effective and is being replicated in other countries where syphilis is a health problem.

Operations research in Guatemala found that traditional birth attendants were not effective referral agents for women with serious pregnancy-related complications. As a result, future efforts will target families, especially husbands and mothers-in-law, to recognize complications and identify appropriate referral sites.

### *Improving the Host Country Environment*

Survey results illustrate to host countries the extent of maternal health problems and build support for relevant programs. During 1994, USAID supported comprehensive surveys in Bolivia, the Central African Republic, Indonesia, and Zimbabwe. The results of previous safe-motherhood or family health surveys in India, Moldova, the Philippines, and Ukraine were published and disseminated. Although USAID is collaborating with the World Bank on its Safe Motherhood Program, USAID is the only donor currently sponsoring such in-depth surveys.

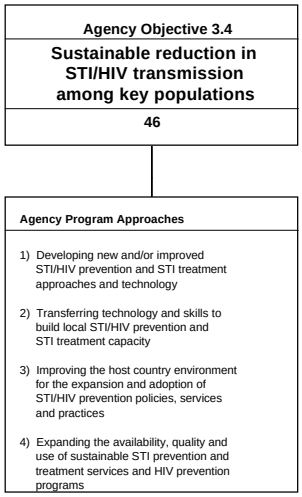
Data from Morocco's 1995 Demographic Health Survey showed progress in maternal health indicators: from 1992 to 1995, the percentage of pregnant women making a prenatal health care visit increased from 32 to 45 percent, while the percentage of births attended by a trained health care professional increased from 31 to 40.

USAID's Latin America regional program provides technical and financial support to reduce maternal mortality in the region by half, a goal endorsed by the World Summit for Children and the Summit of the Americas. In 1995, USAID advocacy of this goal led the First Ladies of the Hemisphere to adopt it as a public health priority for their countries.

## Sustainable Reduction in STI/HIV Transmission

Close to 20 million people have been infected with the HIV virus since the beginning of the AIDS pandemic. It is estimated that by the year 2000 this number could double. In many countries, the rapid spread of HIV is accelerated by unsafe sexual activity, low use of condoms, and high prevalence rates of other sexually transmitted infections, such as syphilis and gonorrhea, which increase the efficiency of HIV transmission. Because of high levels of undiagnosed STIs among women and their greater biological, cultural, and socioeconomic vulnerability to HIV infection, it is not surprising that women are becoming infected at faster rates than men. The number of HIV-infected women is expected to double between 1994 and the year 2000, climbing to 14 million.

**Figure 4.10**
**Number of Country Programs Contributing to Agency Objective 3.4**




As the AIDS pandemic continues, it strains already overburdened social, health, and economic infrastructures in developing countries, where resources are limited and

competing demands are increasing. The pandemic poses a significant threat to sustainable development. After notable improvements in the health status of children over the past two decades, infant and child mortality rates are rising as a result of HIV/AIDS. According to USAID projections, during the next 15 years, Thailand's child mortality will more than triple, and in Kenya and Zimbabwe it will more than double.

The effects of the pandemic are being felt economically at both the family and national levels. In some countries in Asia and East Africa, 30 percent to 50 percent of household income is spent on care for family members with AIDS-related illnesses. Some sub-Saharan African governments are using between one quarter and more than one half of their total health budget on HIV/AIDS treatment.

From 1986 through 1992, USAID supported prevention activities implemented by the World Health Organization's Global Program on AIDS and projects in USAID emphasis countries to understand the best ways to attack the problem of HIV transmission. The results of this early work were crucial in identifying an array of effective interventions:

- Increasing knowledge of HIV/AIDS transmission
- Promoting behaviors that reduce sexual transmission of HIV/AIDS
- Preventing and managing other sexually transmitted diseases that increase the risk of HIV/AIDS infection
- Increasing condom use through social marketing campaigns
- Formulating policy

Within a remarkably short time frame—eight years—USAID led the way in establishing global standards of practice for HIV prevention. The Agency has emerged as the global leader in addressing the pandemic, committing more than $700 million for prevention activities since 1986. In collaboration with other international donors and national governments, USAID has

- Reached more than 3.2 million people with comprehensive HIV prevention education
- Trained more than 58,000 people to serve as educators, counselors, health providers, and program managers
- Provided technical and financial support to more than 210 NGOs to implement HIV prevention programs
- Arranged for the sale or distribution of more than 118 million condoms in developing countries

Recent computer simulation modeling of the pandemic has enabled USAID to begin estimating the impact of its interventions. In Kenya, for instance, according to computer estimates, the condom promotion intervention alone averted more than 110,000 HIV infections and 1.3 million other STIs during 1991–94.

## Box 4.8 USAID Develops Ways to Control the AIDS Pandemic

USAID's prevention strategies rely on a proven set of methodologies and techniques to control the AIDS pandemic:

- Rapid assessment methods, to obtain information quickly that can be used to refine and target communications
- Innovative use of special *mass media techniques*, designed to convey sensitive and potentially provocative information, combined with specific *interpersonal communication methods* to promote personal behavior change and an evolution of social norms
- New, simpler *sexually transmitted infection treatment protocols*, developed to facilitate more effective treatment of STIs by multiple levels of health care providers, allowing the integration of STI prevention and management into family planning and other health sectors
- Commercial marketing expertise, adapted to ensure that condoms and even STI self-treatment kits are available to those who need them
- Computer modeling analyses of the trends of the AIDS pandemic and its socioeconomic implications, incorporated into policy dialog and formulation.

Because the HIV virus arrived at different times in each region of the world, interventions and related results have followed varying timelines. In 1995, measurable changes in HIV incidence and prevalence were observed in selected countries.

In Uganda, HIV prevalence among prenatal clinic attendees has slowly but steadily decreased since 1992, from 29 percent to 22 percent.

Recent data indicate a decrease in new HIV infections among high-risk groups in Thailand. Implementation of a 100 percent condom-use policy in commercial sex establishments has reduced STI incidence from 13 percent to 0.3 percent per month. Surveys in Thailand also show a dramatic reduction of new HIV infections in military recruits, a proxy indicator for infections among the general population of sexually active young men.

The Agency has implemented a coherent set of approaches to reduce sexual transmission of HIV. It has implemented those approaches in partnership with host country governments, other donors, PVOs, NGOs, and community groups.

## *Transferring Technology and Skills to Build Local Capacity*

The transfer of skills and technology helps ensure that local programs are effective and sustainable. Strengthened local capacity can be demonstrated by comparing HIV prevention activities in the 24 USAID emphasis countries in 1991—before the advent of full USAID assistance—with the current status.

In 1991, only 7 of the 24 emphasis countries had national treatment guidelines for sexually transmitted diseases. By 1995, 15 countries had produced guidelines. Through a series of discrete steps, advances were achieved in upgrading STI services.

In 1991, no emphasis country had implemented simple diagnostic and treatment methods for STIs. By 1995, 11 countries had incorporated these simpler diagnostic and treatment methods into their guidelines, and 6 had ensured adequate access to STI drugs in the public sector.

In 1991, only 6 emphasis countries used mass media to raise public awareness of HIV and AIDS, the implications of HIV infection and AIDS, and how to protect oneself from infection. By 1995, 12 countries were using mass media on a national basis.

Awareness and knowledge often are not enough to effect personal behavior change. In many cases, assessment of personal risk, developed through interpersonal communication and counseling, is critical. In 1991, 11 countries were employing some form of person-to-person education for high-risk groups, such as commercial sex workers and their clients, STI patients, and truckers. By 1995, 20 emphasis countries had implemented these programs and 19 had extended these activities to vulnerable groups in the general population, such as students, youth, and women.

In 1991, 16 emphasis countries had established systems for condom social marketing, mainly on a small scale for family planning services. Only eight countries used contraceptive social marketing for HIV/STI prevention. To reach new high-risk audiences, social marketing had to be expanded and adapted to include more relevant messages. By 1995, 22 emphasis countries had changed their social marketing policies to include contraceptive social marketing for HIV/STI prevention, and 19 countries had achieved national access to subsidized condoms.

## *Expanding Service Availability, Quality, and Use*

Strengthened local capacity has led to an expansion in the availability, quality, and use of proven, sustainable STI prevention and treatment services and programs to prevent HIV transmission. Recent data show that impressive gains have been made as a result of USAID's efforts to strengthen these services. For example, in Ethiopia sales of condoms increased from 690,000 in 1990 to more than 17 million in 1994. In Kenya private sector condom sales increased from 2.1 million in 1993 to 4.8 million in 1994, representing a 129 percent increase in one year.

In Zambia, the number of condom distribution points increased from 100 sites in 1993 to 1,000 in 1994, while the number of condoms dispensed doubled, from three million to six million per year. In Botswana, the number of condom outlets rose by more than 100 percent during 1994–95, from 345 to 701. As a result of these additional sites, the number of condoms sold rose from 871,000 in 1993 to two million in 1994, an increase of 139 percent.

Recent data from Brazil show that condom use has increased from 15 percent to 65 percent among young male prostitutes who have sex with men commercially but also have girlfriends. STI prevalence in this group decreased from 71 percent to 32 percent.

## *Improving the Host Country Environment*

Improving the host country environment is essential for expanding and adopting services, policies, and practices for the prevention of STIs. The Agency has made progress in helping developing-country governments recognize the magnitude of the AIDS pandemic and in gaining their commitment as full partners in combating the problem.

The Government of Jamaica increased its budget for AIDS prevention and control by 53 percent over 1993 levels. The government now absorbs a greater share of the costs of the mobile contact investigators and pharmaceuticals for STI treatment, which had been funded largely by USAID.

The International HIV/AIDS Alliance increased community participation in the development and implementation of HIV/AIDS policies and practices by strengthening more than 100 NGOs in 12 countries to expand their services to address HIV/AIDS prevention and care.

## *Developing New and Improved Approaches and Technologies*

Development of new and improved methods and technologies to prevent HIV transmission, to mitigate the effect of HIV on related diseases, and to prevent and treat other STIs is a cornerstone of USAID's efforts. Recent results demonstrate the importance of this long-term investment.

A low-cost, rapid, simple dipstick test for detecting HIV antibodies is now being produced in Argentina, Cameroon, India, Indonesia, Thailand, and Zimbabwe. USAID supported development of this test and the technology transfer to appropriate manufacturing sites in these countries for both local and regional distribution.

A new compound that has both anti-HIV and antibacterial qualities is undergoing phase one testing in five countries in anticipation that it will be the key ingredient of a vaginal microbicide that women could use to prevent HIV transmission.

A plasma separator card has been developed and is now in production. This card allows syphilis testing using a simple fingerstick sample. It provides test results within 20 minutes, so the patient can be treated immediately if infected.

Because of the relationship between HIV and tuberculosis, USAID is monitoring the spread of drug-resistant tuberculosis throughout the world. Laboratory and epidemiologic capacities of researchers in Latvia, Mexico, and the Philippines are being strengthened. Information gathered will be used to identify more effective control regimens to reduce the spread of multidrug-resistant disease to the United States.

USAID is supporting studies on cost-effective methods to reduce HIV transmission from infected mother to newborn baby.

Systems and infrastructure to perform field tests were developed for prototype STI diagnostic tests. Field tests assessed both clinical efficacy and feasibility in resource-poor settings. Only one of the four original prototypes proved promising and is now undergoing refinement. While the other three were not successful, the systems and infrastructure established will permit far more rapid and efficient testing of a second wave of new test kit prototypes.

In August 1995, USAID convened the Third HIV/AIDS Prevention Conference, to further advance the state of the art. More than 750 participants from more than 50 countries exchanged ideas, shared field experiences and research findings, discussed methods and approaches, and considered policy issues. Information and linkages that emerged from

the conference will guide and strengthen USAID's HIV/AIDS-related technical assistance in the coming year. Implications for HIV/AIDS prevention efforts will be even longer lasting. While the number of HIV-infected individuals is likely to double in the next five years, evidence shows that USAID's continuing commitment to HIV/AIDS programs will have a profound effect in helping to control this worldwide pandemic.

## Lessons Learned and Challenges Ahead

While USAID has made significant progress toward meeting its goals of stabilizing world population and protecting human health, tremendous challenges loom ahead. Millions of women do not have access to basic health and family planning services, and each year millions more will enter their reproductive years. Because of lack of access to basic preventive services, millions of children will die. Sexually transmitted infections are a growing problem, and HIV/AIDS is undermining progress in efforts to decrease mortality. USAID and its partners must find ways to connect with hard-to-reach groups, make services sustainable, and build public health systems that will be able to meet the future needs of people worldwide. All this must be accomplished in an era of declining resources, political and social instability in many of the countries where USAID works, and new and reemerging diseases that threaten the lives and well-being of people everywhere.

Although these challenges are daunting, USAID and its partners have strategies for responding to changing needs. In addition to working with communities and partners in the public and private sector, the Agency has been able to facilitate the application of technological improvements to large-scale programs. Typically, USAID and its partners identify innovative approaches, test them on a small scale in a variety of field settings, support expansion of successful demonstration efforts, and, where appropriate, help institutionalize them in national programs. This process has long been a hallmark of USAID work in the population, health, and nutrition sector. In 1995 several lessons emerged from this process that will provide guidance in meeting the challenges ahead. Among them:

- Interventions to improve quality assurance, drug logistics, financing, and community participation, monitoring, and evaluation are critical to ensure effective, sustainable programs. These activities promote all four health sector objectives.
- Efforts to increase male involvement in family planning are both necessary and feasible. Greater availability of a new, simple no-scalpel vasectomy method in Mexico is having a dramatic effect on men's acceptance of family planning. It holds promise for other countries as well.
- Recovering a greater portion of the costs of services by charging fees has been shown to be feasible in a range of settings. However, careful attention must be paid to the impact on low-income clients and to ensuring that the quality of care provided is sufficient to attract clients who can pay.
- Recent research has revealed that even mild to moderate malnutrition threatens child survival. In designing programs to reduce child mortality, the critical role of nutrition must be considered. Integrated management of the sick child, for instance, trains health workers to address nutritional status during every clinic visit.
- USAID needs to provide its expert technical support to reduce barriers so that maternal health services can be provided where and when women need them. Just as USAID influenced the international agenda to modify policies on population and HIV/AIDS, USAID will advocate policy changes to improve maternal health status.
- Promising results from Thailand suggest that a range of interventions can reduce the spread of HIV. Even without a cure for AIDS, USAID programs have demonstrated that there is hope for slowing the pandemic.

A number of new program directions will contribute to performance in the population, health, and nutrition sector and further

advance progress toward the four strategic objectives:

*Providing the technical foundations for integrated approaches to reproductive health.* Worldwide programs in training, operations research, information and communications, and policy development began in 1995. Their mandate is to incorporate attention to maternal health, STIs, and HIV along with family planning in supporting systems of care that will be more responsive to client needs. Integrated approaches will be monitored carefully. In some instances, these approaches place excessive burdens on systems with low capacity. This happened, for example, when voluntary maternal and child health family planning workers in Ugandan villages tried to add STI counseling to their services. Unless solutions are found, such additional tasks can impede rather than enhance programs.

*Emphasizing behavior change and communication programs to create and increase demand for family planning and other services, and to reduce STI and HIV/AIDS transmission.* USAID is developing a new behavior change activity that will draw together lessons learned from communications models and operations research conducted in various parts of the sector. With a greater emphasis on the needs of clients and potential clients, this activity should ensure more appropriate and effective messages and communication programs.

*Addressing the needs of young adults.* Recognizing that more than half the population in developing countries assisted by USAID is under age 25, the Agency has launched an effort to address the special information and service needs of this underserved group. Projects also increased technical assistance in this area. For example, technical assistance helped the Young Women's Christian Association in Ghana provide reproductive health services and counseling for youth. In Jamaica, it supported a peer education program. In pilot projects in Chile, Ecuador, and Mexico young adults are taught about responsible decision-making and their reproductive physiology before they learn about natural family planning.

*Intersectoral initiatives.* USAID-supported pilot projects have shown in recent years that environmental NGOs and reproductive health providers can be linked effectively. Activities under way in 12 developing countries involve more than 15 U.S. and international NGOs with interests in population policy, reproductive health, and the environment. An initiative is planned to raise awareness of the effect of population pressures on water resources management in ecologically vulnerable areas.

*Girls' and women's education.* Recent analyses of USAID-funded Demographic and Health Surveys provide further confirmation of the importance of advances in female education to health. For example, a 1995 analysis of survey results for 26 countries reported that women with less education were more likely to have almost twice their ideal family size. Women with more education were more likely to have the number of children they wanted. This underscores the importance of ensuring both widespread access to quality family planning and health services and increased education for girls. USAID's 1995 Girls' and Women's Education Initiative will be undertaken in a number of countries with significant family planning and health programs, including Ethiopia, Guatemala, India, Mali, Morocco, and Nepal. (See chapter 2, "Encouraging Broad-Based Economic Growth," for a description of this initiative.)

*Lessons without borders.* USAID identifies population, health, and nutrition strategies and models that can be adapted and applied in the United States. Techniques for social mobilization, planning, management, and evaluation used in USAID's child survival, family planning, and HIV/AIDS programs will help U.S. communities and NGOs reach underserved, vulnerable populations. Health technologies researched and developed by USAID, including contraceptive technology, represent another achievement that can easily be transferred to the U.S. context (see box 1.1).